

OLDEST BEE PAPER
IN AMERICA

THE AMERICAN BEE JOURNAL

ESTABLISHED
IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND HONEY PRODUCTION.

Vol. XIX.

Chicago, Ill., November 28, 1883.

No. 48.

THE WEEKLY EDITION



PUBLISHED BY

THOMAS G. NEWMAN,

EDITOR AND PROPRIETOR.

925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$2 a year; Monthly, \$1.

PREMIUM.—Any one sending one new subscription for the Weekly, or two for the Monthly, for one year, besides their own subscription for a year for the Weekly, will be entitled to a copy of "Bees and Honey," bound in cloth.

☞ The receipt for money sent us will be given on the address label on every paper. If not given in two weeks after sending the money, write us a Postal card, for something must be wrong about it.

☞ Any person sending a club of six, is entitled to an extra copy (like the club), sent to any address desired. Sample copies furnished free.

☞ Papers are stopped at the expiration of the time paid for, unless requested to be continued.

FOREIGN POSTAGE, EXTRA:

To Europe—Weekly, 50 cents; Monthly, 12 cents.
To Australia—Weekly, \$1; Monthly, 24 cents.

George Neighbour & Sons, London, England, are our authorized agents for Europe.

Entered at the Chicago P. O. as Second Class Matter.

ADVERTISING RATES.

20 cents per line of space, each insertion,

For either the Weekly or Monthly Editions.

A line of this type will contain about 8 words; TWELVE lines will occupy ONE-INCH of space. Transient Advertisements payable in advance. Editorial Notices, 50 cents per line.

Advertisements may be inserted one, two or four times a month, if so ordered, at 20 cents per line, of space, for each insertion.

Advertisements withdrawn before the expiration of the contract, will be charged the full rate for the time the advertisement is inserted.

THOMAS G. NEWMAN,

925 West Madison Street., Chicago, Ill.

Topics Presented in this Number.

Be Courteous, even if you Cannot Ap- prove	605
Bee-Fever, Selling Honey, etc.	610
Bee-Keepers Produce the Wax	612
Bees in Oregon	605
Call Things by their Right Names.....	603
Cellar Wintering of Bees.....	611
Conditions of Wintering.....	607
Different Varieties of Bees	609
Early Frost Cut off the Fall Bloom.....	611
Explanation and Report for 1883	612
Feeding Bees in Winter	610
Foul Brood.....	611
From 8 to 20, and 500 lbs. of Honey....	612
Hamilton, Ont., Convention.....	608
Honey and Beeswax Market.....	605
Marshall Co., Iowa, Convention.....	607
Michigan Convention.....	612
Moving Bees, etc	611
My Report, for 1883	612
My Surplus Arrangement	612
No Fall Honey	611
Nomenclature of Bee-Keeping	603, 604
No Surplus Honey.....	611
Ohio State Convention	608
Packing Honey for Shipment	606
Pollen—Now for the Facts	606
Poor Season for Bees.....	612
Question for Mr. Stewart.....	612
Seed of an Aster.....	611
Selections from Our Letter Box.....	611
Special Notices.....	613
Strange Bees.....	612
What and How.....	610
Wintering Bees on Summer Stands....	608

☞ We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

☞ To all new subscribers for the Weekly BEE JOURNAL who send us \$2.00 for 1884, we will send the remainder of this year free, from the time the subscription is received. So, the sooner they subscribe, the more numbers they will get free.

BOOK CLUBBING LIST.

We will supply the *American Bee Journal* one year, and any of the following Books, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

Price of both. Club

The Weekly Bee Journal.....	\$2 00..
and Cook's Manual, 7th edition (in cloth) 3 35..	2 75
Cook's Manual, (in paper covers)....	3 00.. 2 50
Bees and Honey (T.G. Newman) cloth 2 75..	2 50
Bees and Honey (paper covers).....	2 50.. 2 25
Binder for Weekly Bee Journal.....	2 75.. 2 50
Apiary Register for 100 colonies	3 50.. 3 00
Apiary Register for 200 colonies	4 00.. 3 50
Dzierzon's New Bee Book (cloth).....	4 00.. 3 50
Dzierzon's New Book (paper covers) 3 50..	3 00
Quinby's New Bee-Keeping.....	3 50.. 3 25
Langstroth's Standard Work.....	4 00.. 3 75
Root's A B C of Bee Culture (cloth) 3 25..	3 00
Alley's Queen Rearing.....	3 25.. 3 00
Scribner's Lumber and Log Book.....	2 35.. 2 25
Fisher's Grain Tables.....	2 50.. 2 25
Moore's Universal Assistant.....	4 50.. 4 25
Honey as Food & Medicine, 100 Copies 6 00..	5 50
Blessed Bees.....	2 75.. 2 50
King's Text Book.....	3 00.. 2 75

The Weekly Bee Journal one year and
and Gleanings in Bee-Culture (A.L. Root) 3 00.. 2 75
Bee-Keepers' Magazine (A.J. King) 3 00.. 2 75
Bee-Keepers' Guide (A.G. Hill)..... 2 50.. 2 25
Kansas Bee-Keeper..... 3 00.. 2 75
The Apiculturist, (Silas M. Locke) .. 3 00.. 2 75
New Eng. Apiarian, (W.W. Merrill) .. 2 75.. 2 50
The 7 above-named papers..... 7 25.. 6 25

The Monthly Bee Journal and any of the above, \$1 less than the figures in the last column.

Local Convention Directory.

1883.	Time and Place of Meeting.
Dec. 5-6, Michigan State, at Flint. H. D. Cutting, Sec., Clinton, Mich.	
1884.	
Jan. 8.—De Moines Co., at Middleton, Iowa.	
Jan. 10.—Champlain Valley, at Middleburg, Vt. J. E. Crane, Pres.	
Jan. 14, 15, 16.—Ohio State, at Columbus, O. C. M. Kingsbury, Sec.	
April 18.—Iowa Central, at Winterset, Iowa. J. E. Pryor, Sec.	
Oct. 11, 12.—Northern Mich., at Alma, Mich. F. A. Palmer, Sec., McBride, Mich.	

☞ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

☞ Make all Postal Money Orders and Postal Notes payable at the Madison St. Station, Chicago, Ill.

Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee Paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

DADANT'S HONEY CROP!

Our crop being very large, we offer **THIRTY THOUSAND POUNDS** of extracted Honey

FOR SALE

at REASONABLE PRICES. We have both clover and fall honey. Samples sent on receipt of stamps to pay postage. The honey can be delivered in any shape to suit purchasers.

Send 15c. for our 24-page Pamphlet on Harvesting, Handling and Marketing extracted honey.

CHAS. DADANT & SON,

SABly HAMILTON, Hancock Co., ILL.

EXCELSIOR HONEY EXTRACTORS



In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, I have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the \$16.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the \$8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable slides in the Comb Baskets. The \$3.00 and \$10.00 Extractors have no covers.

For 2 American frames, 13x13 inches.....	\$8 00
For 2 Langstroth " 10x18 "	8 00
For 3 " 10x18 "	10 00
For 4 " 10x18 "	14 00
For 2 frames of any size, 13x20 "	12 00
For 3 " 13x20 "	12 00
For 4 " 13x20 "	16 00

ALFRED H. NEWMAN,

923 West Madison Street, Chicago, Ill.

DADANT'S FOUNDATION

From JAMES HEDDON, July 27th, 1883.—Your Foundation is certainly the nicest and best handled of any I have seen on the market. It is the only foundation true to sample I have ever received.

From JAMES HEDDON, Aug. 10th, 1883.—I will contract for 2,000 pounds of foundation for next season on the terms of your letter.

From A. H. NEWMAN, Aug. 24th, 1883.—Book my order for 5,000 pounds for spring delivery.

From C. F. MUTH, Sept. 6th, 1883.—All of your shipments of foundation during the season were sold on the day of their arrival.

Dealers, send in your orders for next spring while wax is cheaper, and save trouble and money.

CHAS. DADANT & SON,

SABly Hamilton, Hancock co., Ill.

ELECTROTYPES

Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c.

THOMAS G. NEWMAN,
925 West Madison Street Chicago, Ill.

BOOKS!

Sent by mail, on receipt of price, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

On dozen or half-dozen lots, we allow a discount of 25 per cent. and pay postage. Special rates, on larger quantities, given upon application.

Dzierzon's Rational Bee-Keeping.—A Translation of the Masterpiece of that most celebrated German authority, by H. Dieck and S. Stutter, and edited, with notes, by Charles N. Abbott, *Ex-editor of the "British Bee Journal."* Dr. Dzierzon is one of the greatest living authorities on Bee Culture. To him and the Baron of Berlepsch we are indebted for much that is known of scientific bee culture. Concerning this book, Prof. Cook says: "As the work of one of the great masters, the Langstroth of Germany, it can but find a warm welcome on this side of the Atlantic." Mr. A. I. Root says of it: "Old father Dzierzon... has probably made greater strides in scientific apiculture than any one man... For real scientific value, it would well repay any bee-keeper whose attention is at all inclined to scientific research, to purchase a copy. Cloth, \$2.

Queen-Rearing, by Henry Alley.—A full and detailed account of TWENTY-THREE years' experience in rearing queen bees. The cheapest, easiest and best way to raise queens. Never before published. Price, \$1.00

Bee-Keeper's Guide; or, **Cook's Manual of the Apiary.**—This Manual is elegantly illustrated and fully "up with the times" on every subject of bee-culture. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, \$1.25; paper cover, \$1.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by Thomas G. Newman.—Fourth Edition. "Fully up with the times," including all the various improvements and inventions. Chief among the new chapters are: "Bee Pasturage a Necessity," "Management of Bees and Honey at Fairs," "Marketing Honey," etc. It contains 160 pages, and is profusely illustrated. Price, bound in cloth, 75c.; in paper covers, 50c., postpaid.

Honey, as Food and Medicine, by Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey; the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc.; and Honey as Medicine, with many useful recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in English and German. Price for either edition, 5c.; per dozen, 50c.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey, and instructions on the exhibition of bees and honey at Fairs, etc., by T. G. Newman. This is a chapter from "Bees and Honey." Price 10c.

Swarming, Dividing and Feeding Bees.—Hints to Beginners, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

Bee Pasturage a Necessity, by Thomas G. Newman.—Giving advanced views on this important subject, with suggestions what to plant, and when and how: 26 engravings. This is a chapter from "Bees and Honey." Price, 10c.

Bees in Winter, with instructions about Chaff-Packing, Cellars and Bee Houses, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

Food Adulteration; What we eat and should not eat. This book should be in every family, and ought to create a sentiment against adulteration of food products, and demand a law to protect the consumer against the numerous health-destroying adulterations offered as food. 300 pages 50c.

Scribner's Lumber and Log Book.—Most complete book of its kind published. Gives measurement of all kinds of lumber, logs, and planks by Doyle's Rule, cubical contents of square and round timber, staves and heading, bolt tables, wages, rent, board capacity of cisterns, cordwood tables, interests, etc. Standard book throughout United States & Canada. Price 35 c. postpaid.

Fisher's Grain Tables for Farmers, etc.—192 pages, pocket form; full of useful tables for casting up grain, produce, hay; cost of pork, interest; wages tables, wood measure, ready reckoner, plowing tables and more miscellaneous matter and useful tables for farmers and others than any similar book ever published. 40 cents.

Moore's Universal Assistant, and Complete Mechanic, contains over 1,000,000 Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer and Business Man. Gives 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Miners, Metallurgists, Assayers, Plumbers, Gas and Steam Fitters, Bronzers, Glaziers, Metal and Wood Workers of every kind.

The work contains 1,016 pages, is a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, \$2.50

Kendall's Horse Book.—No book could be more useful to horse owners. It has 35 engravings illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has recipes, a table of doses, and much valuable horse information. Price 25c. for either the English or German editions.

Quincy's New Bee-Keeping, by L. C. Root.—The author treats the subject of bee-keeping so that it cannot fail to interest all. Its style is plain and forcible, making all its readers realize that its author is master of the subject.—\$1.50.

The Hive I Use.—Being a description of the hive used by G. M. Doolittle. Price, 5c.

Novice's ABC of Bee-Culture, by A. I. Root.—This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, \$1.25.

King's Bee-Keepers' Text-Book, by A. J. King.—This edition is revised and brought down to the present time. Cloth, \$1.00.

Langstroth on the Hive and Honey Bee.—This is a standard scientific work. Price, 52c.

Blessed Bees, by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, 75c.

Foul Brood; its origin, development and cure. By Albert R. Kohnke. Price, 25c.

Extracted Honey; Harvesting, Handling and Marketing.—A 24-page pamphlet, by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management adopted in their apiary. This contains many useful hints.—Price 15c.

Practical Hints to Bee-Keepers, by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees. Price, 10c.

Dzierzon Theory—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. 15 c.

Wintering Bees.—This contains the Prize Essays on this subject, read before the Centennial Bee-Keepers' Association. Price, 10c.

Deutsche Buecher, Ueber Bienenzücht.

Bienen Kultur, oder erfolgreiche Behandlung der Bienen, von Thos. G. Newman. Dieses Pamphlet enthält Belehrungen über folgende Gegenstände—Der Tlichkeit des Bienenstandes—Honig pflanzen—Erziehung der Königin—Füttern—Schwärmen—Ableger—Versehen—Italienisieren—Züfeker von Königinnen—Ausziehen—Bienen behandeln und beruhigen; weiter enthält es ein Kapitel, worin die neueste Methode für die Herrichtung des Honigs für den Handel beschreiben ist. Preis 40 Cents.

Honig als Nahrung und Medizin—von Thomas G. Newman. Dieses enthält eine klare darstellung über Bienen und Honig des Alterthums; die Beschaffenheit, Qualität, Quellen und Zubereitung des Honigs für den Handel; Honig als Nahrungsmittel, angebend wie man Honigkuchen, Formkuchelchen, Puddings, Schaumconfect, Weine, u. s. w. zubereiten kann; ferner Honig als Medizin mit vielen Rezepten. Es ist für den Conumenten bestimmt, und sollte vieltausendfältig über das ganze Land verbreitet werden. Preis 6 Cents.

Das Pferd und seine Krankheiten—Von B. J. Kendall, M. D., enthaltend ein alphabetisch geordnetes Verzeichniss der verschiedenen Pferdekrankheiten, sammt den Ursachen, Symptomen und der richtigen Behandlung derselben; ferner, eine Sammlung werthvoller Rezepte. Preis 25 Cents.

THOMAS G. NEWMAN,
925 West Madison St., CHICAGO, ILL.

Weekly Bee Journal,

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XIX.

CHICAGO, ILL., NOVEMBER 28, 1883.

No. 48.



Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

Call Things by their Right Names.

For a long time we have contemplated writing an article on the above subject, but deferred it, because of the labor necessary to cover the entire ground. Mr. F. L. Dougherty lately gave the following, on this subject, in the *Indiana Farmer*, which we quote as an introduction to what we wish to say. He says:

"Do not call a frame, a 'rack' or a 'sash;' call it a frame. When filled with comb, it may be called a comb. A rack is a form which rests on the hive, to hold sections. Sections are for surplus comb honey. A hive is a box or other receptacle for bees. A hive full of bees is a colony. When a colony is on the wing or clustered, it is a swarm."

That is the whole thing in a nutshell; but to reform this extensive abuse of language, we think will require more than a passing remark. The nomenclature of bee-keeping is sadly out of harmony, and it needs a thorough over-hauling to induce correspondents to use proper terms, when writing on bee topics. Quite often it is very difficult to determine what idea is meant to be conveyed, because of this habit of calling things by their *wrong* names.

Some writer astonishes us with the remark that he "wintered" his "stands in the cellar," and that "they came out in bad shape." The "stands" are the supports upon which the hives rest, and as they may be left on the places where the hives stood in the summer, we cannot think that the writer meant that they were taken into the cellar at all, so we have to *imagine* that he meant that his colonies of bees were "wintered in the cellar," though he does not say so!

He also says that his "stands" "came out in *bad shape*!" What! Did the "stands" change their shape? If the pieces of wood were nailed in a rectangular form, did they change, of their own accord, to a square "shape?" or, What was the matter?

Again, if we *suppose* that he meant the "colonies of bees" when he said "stands," we are "just as much at sea" to determine what is meant by their "coming out in bad shape!" Did his bees change their *shape*? Were they bees, when put in the cellar, and were they of the shape of mice, rabbits or birds, when taken out? As this cannot be what was meant, we are called upon again to *imagine* that he was speaking about their *condition*. Now, all this confusion would have been averted, if he had simply said that his bees were wintered in the cellar, and when taken out were weak, diseased, or dead, as the case might have been. Such language would have conveyed an intelligent idea, but to say that his "stands" came out of the cellar in *bad shape*, conveys no intelligent idea at all!

Another correspondent assures us that "Mr. — wintered in his cellar." Did he? Poor fellow; what a pity that he did not have a dwelling house over that cellar in which to live during the winter! We admit that there are thousands in crowded cities who live, both in summer and winter, in cellars, but, alas, "their days are few and full of disease!" But our correspondent evidently did not mean to convey that idea at all—he only *meant* to say that Mr. — put his bees in the cellar to winter them! Then, why did he not say so, and convey an intelligent idea?

Another writer astonished us with the assertion that four of his "hives ran away to the woods!" It would have been worth a trip of several miles to see hives running over fields, fences, and perhaps rivers "to the woods!" But he evidently meant to say that four swarms came out of the

hives, and *flew* away to the woods. That robs the matter of all obscurity!

Scores of similar nonsensical expressions are used to confuse the reader. We have, for years, studiously avoided using many of such expressions in the BEE JOURNAL, by correcting all manuscripts before giving them into the hands of the printers, and we already notice a very marked improvement among our correspondents, and to encourage further reform, we invite the attention of the reader to the following explanations of terms used in the pursuit of bee-keeping:

Abnormal Swarm.—Bees leaving a hive, from some unnatural cause.

A Colony of Bees.—An organized body of bees; and, when complete, having a queen, a few hundreds of drones, and many thousands of worker bees. Improperly called a swarm, stock, stand, hive, gum, skep, etc.

A Swarm of Bees.—Bees issuing from the parent colony for the purpose of increase.

After-Swarms.—Those issuing subsequent to the first swarm.

Alighting Board.—A board at the entrance, for the bees to alight on.

Apiarist.—An expert bee-keeper.

Apiary.—A place where bees are kept.

Apiary Register.—A book in which to keep a record of both queens and colonies.

Apiculture.—The pursuit of bee-keeping.

Balling a Queen.—A cluster of bees around a strange queen, trying to sting her.

Bee Bread.—Pollen.

Bee Diarrhoea.—A disease of bees, improperly called dysentery.

Bee Gum.—Part of a log which wild bees have inhabited.

Bee Hive.—A box, with suitable fittings, to hold a colony of bees. Improperly called a gum, skep, etc.

Bee House.—A house to hold several colonies of bees.

Bee Moth.—A miller which preys upon the combs.

- Bee Pasturage.**—Honey-producing trees, plants or shrubs; improperly called artificial pasturage.
- Beeswax.**—A substance made by bees for building comb.
- Broad Frame.**—A wide frame for holding sections.
- Brood.**—Larvæ in all stages.
- Brood Combs.**—Combs used for breeding purposes.
- Cases.**—Wide frames to hold sections for surplus honey.
- Cells.**—Hexagonal birth-place of bees and depositories for honey.
- Chaff Hives.**—Double-walled boxes, filled in with chaff, for bees, both in summer and winter.
- Cluster of Bees.**—A festoon of bees clinging to one another.
- Comb Basket.**—A basket to hold combs in a honey extractor.
- Comb Foundation.**—Sheets of wax on which the base of cells have been imprinted by a machine, mill or press. Improperly called artificial comb.
- Comb Guide.**—Small pieces of comb foundation, to guide the bees in building combs in frames or sections.
- Comb Honey.**—Honey in the comb.
- Cushion.**—A bag filled with chaff or something porous, to be placed over or at the sides of the frames in cold weather.
- Cyprian Bees.**—Bees from the Island of Cyprus.
- Dividing.**—A method of increase by dividing two or more colonies.
- Division Board.**—Used for contracting the brood-chamber of the hive.
- Drones.**—Male bees.
- Driving Bees.**—Drumming on the outside of a box hive, to drive the bees up into an empty box on top.
- Entrance.**—A passage way for the bees to enter the hive.
- Entrance Blocks.**—Used for contracting the entrance.
- Extracted Honey.**—Honey taken from the combs by centrifugal force. Improperly called strained honey, which was obtained by mashing up the combs and straining through cloth.
- Granulated Honey.**—Honey formed into grains. Improperly called candied and crystalized honey.
- Hatching Brood.**—That just emerging from the cells.
- Honey.**—Nectar gathered by bees from flowers.
- Honey Board.**—A board or slats used over the frames, to support the surplus receptacles.
- Honey Extractor.**—For extracting honey from the combs by centrifugal force.
- Honey Gate.**—A faucet for drawing honey from the extractor.
- Honey House.**—A place for storing and extracting honey, etc.
- Honey Knife.**—Used for uncapping the cells, before extracting.
- House Apiary.**—A building having double-walls, in which to keep several colonies of bees.
- Hybrids.**—A cross between two species of bees.
- Italian Bees.**—Bees from Italy. Sometimes called Ligurian, because they were imported from Liguria.
- Introducing Queens.**—Inserting a strange queen in a colony.
- Lamp Nursery.**—Used in rearing queens.
- Larva and Pupa.** (plural, Larvæ and Pupæ).—Unsealed brood. The first stage is the egg; the second is the larva; the third, the pupa; the fourth, the imago, the last stage of insect life.
- Laying Workers.**—Those workers that lay eggs, which produce drones. Improperly called fertile workers.
- Mandibles.**—The bees' jaws.
- Manipulation.**—The handling of bees.
- Metal Rabbets.**—Strips of folded tin, on which the frames rest.
- Movable Frames.**—Frames enclosing the breeding combs, by which they can be handled. Improperly called sash, slats, etc.
- Natural Swarm.**—One that issues naturally.
- Nucleus.** (plural, Nuclei).—The foundation for a colony, with a queen or eggs from which to rear one, and one or more frames of bees and brood.
- Nursing Bees.**—Young bees whose duty it is to care for the brood.
- Observation Hive.**—Having a side or sides of glass, for observing the work of bees.
- Overstocking.**—When there are more bees in a locality than there is pasturage for their support.
- Piping of the Queen.**—Notes of anger produced by a queen, who is prevented from killing her rivals, by the bees who intend to swarm.
- Pollen.**—The farina of flowers, when mixed with honey, the food of young bees.
- Pollen Baskets.**—A cavity on the hind legs of the workers in which to carry pollen.
- Propolis.**—Bee glue, a resinous substance gathered from trees, etc., and used by the bees in cementing and filling up cracks, etc., in hives.
- Queen.**—The mother of the colony.
- Queen Cage.**—A cage used in shipping or introducing queens.
- Queen Cells.**—Large cells in which queens are reared.
- Queenlessness.**—Colonies having no queen.
- Queen Rearing.**—Rearing of queens. Improperly called raising queens.
- Quilt.**—A cloth covering for frames.
- Rendering Wax.**—Melting combs, and clarifying the wax.
- Ripe Honey.**—Honey that is ready to be capped.
- Robbing.**—Bees stealing stores from other colonies.
- Royal Jelly.**—Food of queen larvæ.
- Sections.**—Small receptacles for surplus honey in the comb.
- Separators.**—A strip of tin or wood, placed between sections, to insure straight combs.
- Spring Dwindling.**—Decimation of a colony of bees in spring.
- Starters.**—Small pieces of foundation or comb fastened to the top of sections, to induce the bees to work in them.
- Sting.**—The bees' weapon of defense. Drones have none.
- Super.**—A rack to hold sections on the hive.
- Syrian Bees.**—Those from Syria or Palestine. Improperly called "Holy Lands."
- Tested Queen.**—One whose progeny, when tested, is found to be pure.
- Transferring.**—A transfer of bees and combs from one hive to another.
- Unripe or Green Honey.**—Honey extracted before being capped, and not evaporated or ripened.
- Untested Queens.**—Those not tested for purity. Sometimes improperly called "dollar queens."
- Virgin Queens.**—Queens which have not been fertilized.
- Warranted Queens.**—Not tested, but guaranteed to be purely fertilized.
- Wax Extractor.**—For rendering wax, by the aid of steam.
- Wedding Flight.**—An excursion of a virgin queen to meet a drone.
- Wide Frames.**—Frames 2 inches wide, to hold sections at the side of the brood-chamber, or in the second story.
- Wild Bees.**—Those in the woods or rocks, etc.
- Wind Breaks.**—Hedges or fences to break the force of the wind upon the apiary.
- Worker Eggs.**—Eggs laid by a fertile queen, which may, at the pleasure of the bees, produce either workers or queens.
- Workers.**—Undeveloped females, who do the work of the hives. They are improperly called "neuters."

We hope that all who write for publication, or talk at Conventions, will carefully consider this matter, and, in future, *call things by their right names*. It will save much embarrassment by the "confusion of ideas," as well as the annoyance of being misunderstood, when confounding terms. "A word to the wise is sufficient."

Bees in Oregon.

The Northwestern *Farmer & Dairyman*, of Portland, Oregon, gives the following historic account of the introduction of bees into Oregon:

Strange as it may seem, there were no wild bees to be found in Oregon, and not even on the Pacific coast prior to the introduction of tame ones here. On careful inquiry, we learn from some of the early pioneers that a man named Buck, and at latest accounts still living in California, made the first successful importation of bees into this country, landing with several colonies in Portland during the summer of 1853. These bees were principally purchased at the apiary of John I. Wood, of Sullivan County, New York. Mr. Jas. Terwilliger, of South Portland, had the good fortune to receive the first colony sold by Mr. Buck in Oregon, paying \$125 therefor. Mr. Thos. Stephens bought the second one sold, paying the same price. These bees were brought to this country by way of the Isthmus route and San Francisco, where, after a stoppage of some considerable time, they were re-shipped to their destination—Oregon.

Mr. Gideon Tibbetts, of East Portland, is authority for the statement that his son-in-law, Dr. D. S. Baker, now of Walla Walla, purchased a colony of bees in New York or Pennsylvania, about the year 1852, and started with them for Oregon, coming by way of Panama. On reaching San Francisco, the bees were found alive and well. They were then re-shipped to Portland, and came on the same steamer in which Dr. Baker was himself a passenger. While on the way hither from the Golden Gate, the bees were robbed of their honey by thieving sailors or passengers on board, and, on the arrival of the vessel at this port, were all found dead, having perished through suffocation at the time of the robbery, or succumbed to hunger afterwards.

In 1858, Mr. Chas. Knowles brought 30 colonies of bees from California, on the old steamer Columbia, and located with them on the Tualatin Plains. In a season or two his colonies increased altogether to about 100, which he sold for \$125 each, and afterwards moved to the lower Columbia river and made a fresh start in the business.

When bees were first introduced into Oregon, they were objects of much curiosity to the Indians, and to many of the native young people among the whites, and there were many persons who traveled long distances to see them at work.

From a small beginning, a few years ago, bee-culture has made great developments in this Northwest land, and we hope, at no distant day, to see it made one of the chief industries of this State and Washington. To those of our citizens who have given the careful and intelligent attention demanded, bee-culture has always returned handsome profits.

Be Courteous, even if you Cannot Approve.

We are having considerable discussion in the BEE JOURNAL now. This is all right, if it is written kindly, and without sarcasm. Discussion is the royal road to progress and improvement, and should at all times be encouraged. But unkind personalities are never welcome, and only show a lack of argument by the person using them. We are more than pleased with many controversial articles contained in several late numbers, and hope the same kind words, but strong arguments will characterize those that are to follow. One of our correspondents, in a private letter, gives his views of the subject in the following language, which we heartily endorse:

"I trust that my opponents, if I have any, will try and be courteous, as while I am ready at any time to give blow for blow, and sarcasm for sarcasm, I much dislike so to do, for the reason, that no good comes from it. It may please some readers to find articles, from time to time, where some one vents spleen, but the majority of bee-keepers, if 'wedded to their idols,' still are gentlemen, and dislike fights where paper bullets are used."

Owing to the death of our Secretary, Mr. T. Brookins, please announce in the BEE JOURNAL that the annual meeting of the Champlain Valley Bee-Keepers' Association, will meet in the parlors of the Addison House, Middleburg, Vt., the second Thursday in January, 1884.

J. E. CRANE, Pres.

The editors of the *American Agriculturist* claim that the November number is not only superior to any other issue of that periodical issued during its 43 years of existence, but is far superior to any number of any similar journal in the world. They certainly have presented an amount and variety of matter which, considering the price of the periodical, is remarkable.

Do not let your numbers of the BEE JOURNAL for 1883 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL.
Monday, 10 a. m., Nov. 25, 1883.

The following are the latest quotations for honey and beeswax received up to this hour:

CINCINNATI.

HONEY—The market is slow; arrivals exceed the demand which, however, has improved some. There is a better demand for comb honey, and supplies are short, which, no doubt, is temporary, as usual. Last year at about this time, comb honey was at its highest, when our sanguine friends very naturally held on, expecting more. However, large supplies commenced to arrive, and prices kept going down steadily. Bee-keepers in general bent their energies on the production of extracted honey last season, more than ever before. We had a large crop, and extracted has been dull so far, not only because of the large supply, but because manufacturers complain of dullness in their business. Consequently, we have reason to believe that the present slow market is temporary.

The present state of the honey market gives our bee-keeping friends another chance for a disappointment, to-wit: That of over-production of comb honey another season. This is merely an idea of my own, and our friends may take it for what it is worth.

Extracted honey brings 7@9c. on arrival. Best comb honey, 16@17c. in small sections.

BEESWAX—Is of ready sale at 28@30 on arrival.
CHAS. F. MUTH.

NEW YORK.

HONEY—White clover and basswood in 1 and 2 lb. sections, 17@21c. Dark and second quality, 14@15c.; extracted white clover in kegs and barrels, 9@10c.; dark, 8c.

BEESWAX—Prime yellow, 27@29c.

H. K. & F. B. THURBER & Co.

CHICAGO.

HONEY—The market remains without change from that of last week. Dealers and retailers buy only enough to supply the demand for present use. It is impossible to place lots, or entire shipments, owing to the reluctance of dealers to buy in advance of immediate wants. Prices obtained for white comb in 1 lb. sections, 18@20c.; 1½ and 2 lb., 15@18c., according to beauty of same. Extracted honey, 8@10c. per lb., according to color, body and flavor.

BEESWAX—Yellow, 33c.; medium, 28@30c.
R. A. BURNETT, 161 South Water St.

SAN FRANCISCO.

HONEY—Market is well stocked with ordinary qualities. Inquiry for the same is not active. For fancy comb it is an easy matter to secure custom. White to extra white comb, 16@18c.; dark to good, 12@14c.; extracted, choice to extra white, 7½@8½c.; dark and candied, 6½@7c.

BEESWAX—Wholesale, 27@28c.

STEARNS & SMITH, 435 Front Street.

ST. LOUIS.

HONEY—Choice comb in light supply—fair demand and firm, at 15@17c.; dark, broken and poorly handled, dull at less. Strained and extracted steady at 6½@7½c.; choice in fancy packages more.

BEESWAX—Better, at 28c. for prime.
W. T. ANDERSON & Co., 104 N. 3d Street.

CLEVELAND.

HONEY—Choice honey is in excellent demand now. Every lot received thus far in good order, has been sold on arrival; best 1 lb. sections bringing 18c. quickly, occasionally 19c.; 2 lb., 17c. with an occasional sale at 18. Second quality and broken lots are very hard to sell. Extracted honey not in demand.

BEESWAX—28c.

A. C. KENDAL, 115 Ontario Street.

BOSTON.

HONEY—Our market is very quiet on honey. We quote 16@18c. for best 2 lb. sections—18@20c. for best white 1 lb., and 10c. for extracted.

BEESWAX—We have none to quote.

BLAKE & RIPLEY, 57 Chatham Street.

KANSAS CITY, MO.

HONEY—Receipts of comb honey has been more liberal for the past week, but the demand still keeps everything that is of fair quality well cleaned up. Choice 1 and 2 lb. sections are taken on arrival at 18c.; larger sections and dark honey 16@17c. Sales of extracted for the past week, about 4,000 lbs., mostly at 8 cts. The feeling for extracted is a little better, and I look for a firmer market.

JEROME TWICHELL, 536 Delaware Street.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.



For the American Bee Journal.

Pollen—Now for the Facts.

G. M. DOOLITTLE.

For the past three years much has been said by the press and otherwise about pollen as being the agent of, if not the direct cause of our wintering troubles with bees. Most writers on the subject claiming that the eating of pollen was the cause of dysentery, for in order to become the cause, or an agent of, the bee must eat the pollen, as all will admit. In all of these discussions (which I have watched very closely) about the matter, I have failed to see any proof given that old bees *do* eat pollen.

After carefully reading all Mr. Heddon (who has been the main agitator of this question) has written on the subject, I fail to find anything which shows why he believes the theory he advocates, unless it be on page 283 of the BEE JOURNAL for 1881, when he says, "I have not found a dead colony, where there was not plenty of bee-bread, showing signs of late work with it, or brood in all stages, and generally both, but nearly always brood." But it will be noticed he does not tell us what those signs were, or whether he saw the signs in the absence of brood.

On page 560, present volume of the BEE JOURNAL, Mr. Kohnke is very positive about the matter, and says regarding dysentery: "If Mr. Heddon had omitted one word in his reply to Rev. L. L. Langstroth when he says, 'But they are sometimes compelled to eat it' (pollen), he would have given the sole and only reason for bees dying with it. Drop the word 'sometimes,' and you have the whole thing in a nut shell." Here, again, the reader will notice that no proof is given to support the assertion.

Since Mr. Heddon's article appeared on page 283 of the BEE JOURNAL for 1881, I have tried several experiments to make old bees eat pollen when there was no brood in the hive, all of which have resulted in the starvation of the bees without a bit of pollen being consumed, as far as I could see. The first experiment I tried was this: I had a colony which had a queen which produced bees of a bad disposition, so much so that I did not care if they died. From these I took away all their honey as soon as they had ceased brood rearing (which was about Oct. 12), and substituted frames of pollen with little or no honey in them. The result was that as soon as they had consumed all the honey they had in their sacks, when I shook them from their combs of honey, and the little there was in the combs given them, they died. The pollen was carefully marked, and the combs examined every other day, as I wished to ascertain the facts in the case. As long as a cell containing a little honey

could be seen, the bees were as active and lively as any bees, but soon after there was no honey to be seen, the bees became drowsy except in the centre of the cluster. In a few days those on the outside were apparently dead, having most of them dropped to the bottom board, or crawled into an empty cell where such could be found among the cells of pollen, while those in the centre of the cluster were sleepy as were those outside a few days previous. At this time the queen was still quite active with, perhaps, a dozen bees near her, but the most of the bees could hardly cling to the combs, while every available cell was filled with bees, too drowsy to back out upon being touched.

The next examination found them all apparently dead, but I succeeded in bringing a few to life by warming them and giving some honey as soon as they would take it. During all this process I could not discover that a particle of pollen was eaten, although I watched very closely. Many interesting facts were brought out, however, such as which bees succumbed first, that the queen was held precious to the last, and that bees could be brought to life after apparently dead, etc., but it would be out of place to dwell on them here.

Other experiments were tried "not unto death," but all to no avail as regards forcing the bees to eat pollen without the presence of brood. This fall I experimented, to see if it made any difference whether the pollen was covered with honey or not, giving a colony frames having a little patch of pollen covered with honey, all the rest of the honey being extracted from them. Although I held the bees to the experiment till I starved $\frac{3}{4}$ of the colony, still none of the pollen was eaten. In no case did I ever know old bees to eat pollen except where brood was being reared. If pollen is used while brood is being reared, and at no other time, then the brood becomes the prime cause of dysentery (if dysentery is thus produced) and the pollen secondary. That old bees are kept from starving during times of scarcity in spring and summer by eating pollen when there is plenty of brood in the hive, I think I have abundant proof of, but in this case the old bees do not partake of the pollen, only as it is partially digested in the stomach of the nurse bees and formed into chyme, when it is fed to the old or field bees the same as it is fed to the larvæ.

By placing frames of pollen in hives containing no honey at such times, I have had the pollen rapidly consumed, and the bees kept lively, while those beside of them would eat up all their brood and starve as soon as the pollen was gone, unless fed. It may be possible that as soon as brood-rearing begins in the hive in the winter, that the old bees are fed pollen in this way, with plenty of honey in the hive, but I have my doubts about it. But if we admit this to be a fact, and that dysentery can be thus produced, then, as I said before, pollen can become only secondary as to producing dysentery.

From all the facts brought out by my experiments, I am convinced that pollen eating is not the cause of dysentery, and here venture the assertion that old bees will not eat pollen except as there is brood in the hive, and shall hold to it until it can be proven that they do.

Now, for the proof, gentlemen, and if you cannot furnish it, there is no need of dwelling upon the subject. We do not want any theories, or any guesses about it. Simply tell us just how you know that old bees eat pollen when the hives contain no brood, and if you prove they do, tell us also how you know that by eating it, dysentery is produced. I wish to here thank Mr. Corneil for his very clear and able article on page 557. He there gives us facts, which are of far greater import to the bee fraternity than a multitude of well-spun theories.

Borodino, N. Y., Nov. 13, 1883.

For the American Bee Journal.

Packing Honey for Shipment.

JEROME TWITCHELL.

I have a great many letters from all parts of the country asking how to pack honey for shipment, and for the benefit of all, I would like to make the following suggestions through the BEE JOURNAL:

All honey-producers will, of course, know that in packing the sections in the case, they must be so arranged that the combs will not touch each other, nor touch the sides of the case, and that they must be wedged in, so that they are absolutely immovable by the ordinary jar of handling the cases.

I would recommend always the use of the paper pan in the bottom of the case, (heavy manilla paper folded at the corners in the form of a pan). It catches all drippings, and preserves the cleanliness of the case. The cases should be of clean new lumber, well fastened together with a panel of glass in one side any how, or even in two sides would be all the better, the glass serves the double purpose of revealing the contents to the handlers of it on the railroads, thereby making them more careful, and also affording the retail merchant a neat and convenient package from which to sell the honey.

Next, as to the size and shape of the cases. These should be as nearly uniform among all packers as possible, and I would suggest as follows, viz.: One-pound sections put 4 lengthwise and 6 across in a one-story case, or double in a two-story, making say about 20 pounds in one and 40 in the other. Two-pound sections, put 3 lengthwise and 4 across, making either one or two stories, and about 20 and 40 pounds in a case.

Larger sections than 20 pounds I do not recommend at all; so I have nothing to say about size of cases for them. Secure the lids with small nails, and not too many. There should always be hand-holds in the ends of the cases to insure the careful handling of them. Mark the weights on the end of

case; never on top, as they become blurred. The net weights are not essential, but the weights of the cases or tare must always be plainly given.

In marking for shipping use a very small stencil or card. If the above suggestions are adopted, comb honey may be shipped any reasonable distance by freight with perfect safety, and will bring better prices and quicker returns than the usual slipshod cases in all sizes and shapes.

Kansas City, Mo., Nov. 17, 1883.

For the American Bee Journal.

Marshall County, Iowa, Convention.

The Marshall County Bee-Keepers' Association met at the Court House in Marshalltown, Iowa, Oct. 6. The Vice-President, G. W. Keeler, in the Chair. The minutes of the previous meeting were read and approved. Mr. C. A. Hasken and Mr. M. M. Fuller were received as members of the society.

The subject for discussion, "Fall and Winter Care," was then taken up.

Mr. Keeler stated that his bees are wintered in a cellar, but he made no fall preparation for them, more than to put them in when it turns cold. He puts one above another. So far he was very successful in wintering.

Mr. Hosken winters his bees in the cellar, and preferred it to out-door wintering.

J. W. Sanders, being called for, said that we should see that all were made ready for the winter, in the latter part of the honey season. This is done by seeing that all have plenty of young brood, late in the season, so as to go into winter with plenty of young bees. This can be done by placing empty combs in the centre, if the queen lacks room, owing to an overflow of honey, or by feeding, if there is a lack of honey in the fields. He thought that many colonies of bees were lost in the latter part of the winter and early in the spring for the want of plenty of young bees late in the season. For the life of a bee is short when on the wing, and if it has spent one-half or two-thirds of its life in the field, it will naturally die before another season comes in. Therefore, he advised to have plenty of young bees to take the place of the old, to prevent what is called "spring dwindling." Fix all up for winter after the honey season is over by contracting the size of the hive, with division-boards, so that only enough combs remain to be occupied by the bees. This will make less space for them to keep warm. I prefer two boards, one on each side. The extra combs can be placed away for use in the spring, as needed. If any colonies are short of stores, add to them by taking from those that has plenty and some to spare. He prefers a good quilt to a honey board, for a quilt allows the escape of the moisture and retains the heat of the bees. He had seen hives with honey boards damp and moldy, while in others, close by them, the quilts were dry, and the bees in prime condition. He made quilts from old worn-out clothing or carpets, or anything that will

make a good warm quilt, the size of a honey-board. After all are thus prepared, let them remain until winter begins, then put them in the cellar, leaving the entrances open full width; place them a foot or more above the bottom of the cellar, with the back end of the hive, 2 or 3 inches higher than the front. Keep the cellar above the freezing point, say about 40° to 45° Fahr., and give them plenty of fresh air.

The following report was then made: Mr. Hasken had 15 colonies in the fall of 1882, 13 in the spring of 1883, and has 32 now (sold 2), and 300 lbs. of surplus comb honey; Mr. Fuller had 5 colonies in the fall of 1882, 4 in the spring of 1883, 12 now, and 100 lbs. of surplus comb honey; Mr. Keeler had 42 colonies in the fall of 1882, 37 in the spring of 1883, 62 now, 838 lbs. of surplus comb honey and 2,880 lbs. of extracted; Mr. Sanders had 11 colonies in the fall of 1882, 11 in the spring of 1883, 25 now, 100 lbs. of surplus comb honey, and 350 lbs. of extracted; Mr. Brown had 2 colonies in the spring of 1883, and has 10 now, and 100 lbs. of surplus comb honey.

The subject for discussion at the next meeting, was "Promotion of Bee-Keeping."

The Secretary stated that the President of the Marshall County Agricultural Society requested all parties interested in bee-culture to meet with the Society at their January meeting, and assist in making out a programme for apiculture for the Fair of 1884.

The meeting then adjourned until the first Saturday in January, 1884, at the Court House in Marshalltown.

J. W. SANDERS, Sec.

For the American Bee Journal.

Conditions of Wintering.

J. E. POND, JR.

The question of frames is one that excites the ire, or arouses the sensibilities of many to such an extent that I propose to avoid it entirely in this article, and confine myself wholly to discussing the general conditions in which a colony must be placed in order to most safely withstand the inclemencies of a northern winter. In the first place I shall assume (and I confidently assume without fear of opposition) that the nearer our bees can be kept to a state of absolute quiet, the more successfully will they be enabled to withstand, not only excessive cold but sudden changes of temperature, both from warm to cold, and *vice versa*.

To attain this state or condition of things, has been the aim and object of scientific apiarists for many years, and in their efforts in this direction, many experiments have been tried, with more or less success, but in none of which have such positive results been achieved, as to absolutely warrant any one in asserting that an absolutely correct method has as yet been discovered. In theorizing on the subject, the various questions of ventilation, moisture, excess of heat,

or want thereof, and various others considered of more or less importance have been discussed, but without as yet deciding anything satisfactorily, at least, the discussion still continues, and the experiments show that with all these points well fortified against, and also without any regard to any of them, bees live in some apiaries and die in others, no matter how much or how little care is taken in their protection. That this is so, proves conclusively that there is an error somewhere in our calculations, and that as yet we have not hit upon the right idea. I may be as wild in my opinions as any one, yet when I find that no matter what the conditions are, some apiaries are saved and some lost. I am emboldened to give my views publicly, and if nothing more comes of it, than to start discussions and experiments upon a new track, I shall have accomplished some little good, perhaps.

I am of the opinion that in our efforts so far, we have been laboring under the idea that bees need as much oxygen for their support, as we do ourselves, and our lack of success is caused by the incorrectness of that idea. As I stated in beginning, I believe that when we so prepare our bees that they will remain in a passive state, a state of nearly absolute quiet, an almost-dormant state, during the whole winter. No matter what changes of temperature may take place, then and then only shall we overcome the chief obstacle that exists to successful wintering. The fact that a hive of bees completely submerged under a snow-bank, during a long and changeable winter, will come out all right in the spring, is one strong proof in this direction.

This, I believe, is owing to the evenness of temperature which necessarily prevails where the colony is completely submerged in so bad a conductor of heat as a snow-bank certainly is. No heat can get in, and none can get out; but it is not owing to this alone, but to the fact that excess of oxygen is kept out also. Snow is sufficiently porous to admit of the passage of sufficient air to enable one to live, still it will not allow of any excess of air to pass through it.

Excess of oxygen will, as a matter of course, excite human life, why not our bees? Any exciting cause produces a bad effect on our bees, by starting them up from that state of quiet so absolutely necessary for their preservation, at a time when they cannot fly freely from the hive. Oxygen must be an exciting cause to our bees as well as to ourselves; now is it not a logical deduction, and one that is presumably correct, that if we contract the entrances to our hives, so as to give our bees the least possible quantity of oxygen necessary for their support, we shall aid more largely in keeping them quiet, than by giving them a larger, and as some advise, as large an entrance as the width of the hive will allow? I ask the question in all honesty and sincerity, and desire an equally honest and sincere answer.

Foxboro, Mass., Nov. 19, 1883.

For the American Bee Journal.

Ohio State Convention.

The Ohio bee-keepers will hold their annual convention in Columbus, O., Jan. 14, 15 and 16, 1884. All interested in bee-culture are invited. The following subjects will be discussed: "How to winter bees successfully." "Are the new races of bees a success?" "What can we do to prevent adulteration of honey?" "How to create a home market for honey." "How many colonies can be kept in one locality?" "Can we do without separators?" "Which are best, deep or shallow frames?" "What shall we do with second swarms?" "How many brood frames are necessary in a hive?" "Which is the most salable section, one-half, one or two pounds?" "Is it advisable for all bee-keepers to adopt a standard size of frame?" "What is the most desirable width of sections?"

The above questions will be discussed by eminent men, such as Rev. L. L. Langstroth, Dr. Besse, S. D. Riegel and others, and in addition to the above, Prof. Lizenby, of the Ohio University, will deliver a lecture on "Honey-producing plants;" also Mrs. Jennie Culp will read an essay.

C. M. KINGSBURY, Sec.

Hamilton, Ont., Convention.

The bee-keepers of Hamilton district met in Convention at the Dominion Hotel, on Saturday, Nov. 10.

Officers elected for the ensuing year: W. J. Whitfield, Dundas, President; R. L. Patterson, Lynden, Vice-President; A. Robertson, Carlisle, Secretary-Treasurer.

The discussion on the best means of wintering bees on summer stands, was well sustained. The plan received with most favor was to permit free circulation of air beneath the hives, provided the tops of the hives are air-tight.

A question was raised as to the best food for bees at the present time, when the apiary held insufficient stores. In reply, it was suggested to feed comb filled with honey, and if without that, to suspend frames in the hives filled with sugar candy.

W. J. Whitfield offered a prize of one colony of bees for the best means of wintering bees. The conditions of the competition are: Entrance of 50 cents, to be applied to a second and third prize; colonies to be entered at date; prize to be given to the one having the largest percentage of numbers entered in best working order, May 27, 1884. The prize winners will be expected to make a statement in writing, for publication, to the judges of the mode of packing, character of hive, size of frame, winter and spring management. The parties getting the bees to furnish Mr. Whitfield with hives not later than June 10, 1884, and to remove them when notified. Competition confined to Wentworth county. Messrs. Whitfield, Patterson and Knowles were appointed a committee to meet the directors

of the Central Fair to arrange prize list, etc., for next year.

A committee was appointed to arrange for matters for discussion at the next meeting.

The Convention adjourned to meet again, April 12, 1884.

For the American Bee Journal.

Wintering Bees on Summer Stands.

J. F. LATHAM.

Wintering! yes; that is what we all—veteran, novice, specialist and amateur, are supposed to be thinking about at present; and admitting that nothing new can be added to the *modus operandi* pertaining thereto, I will wave the plea of originality—that not being the import of my caption—and as what I write embodies my very humble opinions concerning the requisites of a successful wintering preparation, I submit them for what they are worth.

CONDITION OF THE BEES.

Bees should be healthy and embody all the other requisites of good colonies. We do not want bees that are constitutionally predisposed to ailments, that are liable to develop a deranged secretion when subjected to the aggravating changes atmospheric, dietetic, etc., that they must necessarily submit to, from the time they cease outside activity in the fall until they resume it again in the following spring. As to quantity, I am not radical. If I do not have bees enough to occupy six frames of comb, I can put up with four. I have wintered colonies from small late swarms, that were not crowded on three frames as successfully, and received as good returns from them the season following as from others that were a hive-full, all doing well, comparatively. The latter extreme I would not advocate as a status of strength; accepting it as a condition, allowable only, when obliged to submit to a stress of circumstances. Large colonies lose more bees in wintering, in proportion to numbers, than quite small ones, if the small ones are properly cared for.

Could I be allowed to decide the strength of my colonies for wintering, those of medium size, covering about six combs would be my standard for selection. Such consume less stores, proportionately than large ones, exhale less moisture, are less liable to create an abnormal condition during confinement, and, conditions alike, they will swarm as early and cast as strong swarms! Giant colonies, with 30 pounds of stores, "are not to be frowned at," but when the same results can be accomplished by a minimum, with two-thirds of the stores, and an extra five minute's care while preparing it for winter, the advantage to the bee-keepers seems to favor the latter. I would not divide the maximum, nor "double down" the minimum.

THE HIVE.

The kind of hive suitable to winter a colony of bees successfully, appears

to be of less decided importance than is generally purported, but as the movable-comb hive only is admissible in bee talk, I will admit all kinds in general, with their accompanying sized frames, and venture the assertion that no style of hive will alone winter a colony of bees. One of my colonies has passed the three preceding winters in a box-hive in as good condition, excepting the loss of more bees, as those in the movable-comb hives, I caring for both alike.

POSITION OF THE CLUSTER.

As soon as possible, after the bees have done storing surplus, I commence to prepare them for winter; my first steps being to locate the cluster at one end of the brood-chamber on combs, $\frac{1}{2}$ or $\frac{2}{3}$ of the lower portion of which is composed largely of empty cells. I then prepare a passage for the bees over or through the combs, close up what space I deem necessary with well-filled combs of capped stores, ending, if required, with a division-board. If the space left, after removing empty combs, or those not needed, is quite large, I fill it with chaff. By the foregoing described arrangement, the cluster is not liable to get divided, and the bees can move *en masse* in the direction of their stores, as they are all above, or on one side of them.

STORES.

For food I supply new capped honey, or sugar syrup, fed during the month of September, and as early in that month as possible. After feeding, I inform myself of the status of each colony, by a thorough examination. I then arrange everything inside of the hive satisfactory, tuck the quilts down snugly, or screw down the honey boards, and let the bees propolize to their satisfaction. During the remaining days in which the bees can fly, I feed sugar candy over the brood-chamber, or outside. This final feeding I have found to operate admirably; it attracts no attention of robbers, and supplies the bees with an excellent food which they will consume in lieu of their winter stores, while they are making their natural preparations, after having their domicils disturbed by over-hauling in the fall, when there is no nectar in the fields.

PACKING.

As soon as the severe frosty nights give warning of winter's approach, I fill the caps of the hives with chaff and straw, about $\frac{3}{4}$ chaff and the remainder straw, putting the chaff in first. I then put a few handfuls of straw on the quilts or honey-boards; put on the well-filled cap, and crowd all down as closely as possible.

This done, I surround the hive with a box having an opening in front. With a passage for the bees, and allowing them to become familiarized with their surroundings, I next pack chaff or straw around the backs and ends of the hives, leaving the fronts until steady cold weather demands further care—when all is completed by crowding the packing around the whole hive, about a foot in thickness.

To give a passage for air from outside, I bore two or more one-inch auger holes in front of the box, and high enough to prevent strong gusts from blowing directly into the entrance of the hive. A board closes the entrance to the box and completes the process.

UPWARD VENTILATION.

Unless the colony is above medium size, I give no ventilation over the brood-nest. If below the medium, I place a folded paper over the quilt, before crowding the cap down. When the colony is a large one, occupying eight of ten American or Gallup frames, I roll the quilt back, the distance of the space between combs, or bore three one-inch holes through the honey-board, at the end of the brood-chamber, opposite from the cluster, and cover the openings with a single thickness of burlap. To facilitate the escape of moisture from the caps, I have a $\frac{3}{4}$ inch auger hole in each end. As the processes described in the foregoing embody the "seven requisites" of a safe wintering, I cannot make a better conclusion than by stating that, having tried them five winters, I have not "found them wanting."

Cumberland, Me., Nov. 12, 1883.

For the American Bee Journal.

Different Varieties of Bees.

W. Z. HUTCHINSON.

The most exhaustive, and, to my mind, the most impartial and best article upon the comparative merits of the Italian and German varieties of bees, appeared in the April and May numbers of *Gleanings* for 1881. It was from the pen of the Rev. L. L. Langstroth. As many of the present readers of the BEE JOURNAL probably have not seen the article in question, I hope I may be pardoned for quoting the decisions therein recorded:

1. When late forage is scarce, the Italians stop breeding much earlier than the blacks.

2. The Italians, unless stimulated by judicious feeding, do not resume breeding as early as the blacks.

3. The Italians are much more inclined to build drone comb than the blacks.

4. The blacks are more ready than the Italians to work in surplus honey receptacles not closely connected with the main hive.

5. The comb honey made by the blacks from light-colored supplies, is usually more attractive than that stored from the same sources by the Italians.

6. With a queen of the current year, the blacks will hardly ever swarm, while, long after the usual swarming season, young Italian queens will often lead off swarms.

7. Black bees are much more sensibly affected by the loss of their queen than the Italians.

8. In building, an Italian colony seldom begins as many combs as the blacks, and, therefore, work them

more compactly, squaring them out, as it were, as they proceed.

9. Black bees will readily build between guide frames, worker combs, while it is very difficult to get any satisfactory result, in this line, from Italians.

10. The Italians, both young and old, adhere with much tenacity to their combs when they are lifted from the hive, while the blacks, more especially those newly hatched, tumble off so readily as to annoy the operator by crawling up his clothes, or exposing themselves to be trodden upon.

11. When the hive is opened, the Italian queen and workers are disposed to remain quiet, and when they are lifted out, the workers spread themselves over the combs.

12. Under adverse circumstances, the blacks are far more easily discouraged than the Italians.

13. The Italians, will, in some seasons, from the second crop of red clover, build new combs, and store them with honey, when black colonies, in the same apiary, are losing weight.

14. Italians suffer little, when compared with the blacks, from the ravages of the bee moth.

15. Italians are far less likely than the blacks to rob or be robbed.

16. The Italians, by their superior energy and greater length of proboscis, will, on an average of seasons, gather much larger stores of honey than the blacks.

After each of the above propositions Mr. Langstroth proceeded to enlarge, illustrate, explain, and go into details as only Mr. Langstroth can, and any one who cares a fig about the matter should send for the papers containing the article.

It will be seen that each of the above varieties possess superior qualities not possessed by the other, and that, upon a summing up, the Italians come out ahead, and for the production of extracted honey, they have no superior. It will also be seen that, for the production of comb honey, the German variety has some characteristics that cannot be successfully ignored. Now, if we can have a strain of bees possessing the good qualities of both races, with the undesirable traits left out, would it not be an upward step? Mr. Heddon asserts that by a judicious crossing of these two varieties, and a careful selection in breeding, he has obtained such a strain; and so well satisfied am I of the truthfulness of this assertion that I commenced, the past season, to stock my apiary with the "Heddon strain." I arrived at this conclusion from an actual trial of the bees. I am well aware that all over this broad land there is a genuine and worthy love for the Italians. I have felt this love, and know what it is, and only those who have "been there" know with what reluctance and real "heart aches" I give up the pure Italians, but self-interest compels me to.

With the Syrians my experience has been short and bitter—they are so irritable. It will be remembered that at the Northwestern Convention, a gathering that "represented the largest number of large, practical,

successful honey-producers," that Mr. Langstroth had ever seen, the inquiry was twice repeated before any one could be found who had gentle Syrians, and then only one person was found, and he only knew that he had bought a selected, tested queen of a reliable dealer; the bees had the same appearance as the Italians. Somebody at the Northwestern Convention remarked that the Syrians had no good qualities not possessed by the Italians, while they had the unpleasant one of extreme irritability. But their admirers tell us that, if we will handle them properly, they will be gentle, and I presume they tell the truth, but who wishes to be obliged to approach the hive upon tip-toe, very slowly remove the cover, then sit down and wait for the bees to become accustomed to admission of the light, and then handle the frames so carefully that there is not the least jar? I will tell you who it is; it is the man who is not dependent upon bee-keeping for his bread and butter, but not the man who raises honey to support his family, and to whom minutes, at some times, may almost be dollars. I am heartily sick of that old saw. "If you will only handle them carefully, they are all right." No doubt of it, but we want bees that we do not have to handle with care; there are times when rapid manipulation, and a little thumping of frames, is absolutely necessary. The next count against the Syrians is, that they do not properly ripen and seal their honey. They are something like the Egyptian bees, whose honey sometimes looks very much like honey which has "sweated" from being kept in a damp place. I am aware that this complaint against them is not universal, but some of our largest producers have discarded the Syrians, and this point was one of the principal ones that influenced them in their decision. "Yes," says one, "but what have you to say to their wonderful prolificness, you do not doubt that do you?" No, I do not doubt it, but I dislike it; in my estimation it is a fault, and a very undesirable one at that. As some one said, at the last meeting of the Michigan State Association, "They will rear brood as long as a drop of honey remains in the hive." Is this a desirable quality? Their propensity to rear large quantities of brood at all times, and to build large numbers of queen-cells, just suits the queen breeder and the bee-by-the-pound man, but does it please the honey-producers? It is quality of bees that suits them, not quantity.

As A. R. Kohnke says, on page 560, "The prolificness of queens and the industry of colonies do not necessarily go together." We prefer bees that fill their hives with honey and then stop breeding (if the honey flow stops), to those that gather honey only to rear more bees that these bees may gather more honey to rear more bees. In other words, bees, not honey, is the great object aimed at by the Syrians; their philoprogenitiveness is greater than their acquisitiveness.

But, says another, "If they breed late in the season, they go into winter with a hive full of young bees." True,

again, but this is an undesirable state of affairs; and if this article were not already too long, I would demonstrate the fact; as it is, I will simply point to the fact that the Syrians die in winter just the same as other bees. But I will accord to the Syrians one good quality, and that is, they can be shaken from the combs "like shot from a shovel." To the gentleman of leisure this may not be an advantage, but to the man with aching back and arms, who shakes off a barrel or more of bees per day, this quality is quite an object.

Rogersville, Mich., Nov. 12, 1883.

CORRECTION.—In my article on page 594, third line from the bottom, "A thin strip of bear comb" should read: "A thin strip of *brace* comb." The same mistake occurs in the 36th line from the bottom. In the second column, same page, 25th line from the top, "stay" should read *stage*.—W. Z. H.

Prairie Farmer.

Bee Fever, Selling Honey, etc.

MRS. L. HARRISON.

Bee-keepers, as a class, are very enthusiastic in their calling, and, as the science is continually advancing in the way of new discoveries and appliances, this tends to keep them so. All students of the profession have to be acclimated, as it were, for all beginners, whether young or old, are sure to be attacked by a malady known to veterans as "bee-fever." Some persons are subject to occasional returns of it, during their natural life, while others get entirely cured.

We love to call to mind our own experience with it. A minister, who combined bee-culture with preaching, seeing how badly we were affected, kindly laid his hand on our shoulder, saying, "Take care, take care, Sister Harrison; you are getting the bee-fever too bad." Poor soul, we have it yet, and are likely to have it as long as we are an inhabitant of a land of flowers and sunshine. Our partner in the sweets and stings often remarks, "If I ever get to heaven, I expect to see you coming around with a bee-hat on."

The best known remedies for this fever, are losses by wintering, poor honey seasons, and an unreliable market. Losses by wintering have become obsolete in the hands of a few skillful bee-masters, and they reap returns, even in a poor season, by an intelligent use of the extractor whenever a flow of nectar occurs for a day or two, and yet they fail to obtain "tip-top" prices for the product.

Novelties in the way of labels are the fashion now, its advocates claiming that in order to sell honey, it must be pleasing to the eye, look attractive, and be adorned with bees, flowers, and streamers gay. While it is true that goods should be attractive to sell well, there is a limit to adornment. Bolts of muslin are adorned with pretty lithographs of pearls, grapes, etc., but what sensible house-wife examines these when she is seeking a

good fabric for wear. She may say they are pretty, but then she directs her attention to the goods, holds it up to the light, examines the threads with a magnifying glass, and looks for the name of the mills. If we were wishing to purchase a package of honey to-day, in the market of Cincinnati, it would not be a novelty in the way of a label that we should seek, but the name upon it. C. F. Muth, of that city, has sold more honey than any person living, and it has not been by his labels either, but by putting upon the market pure unadulterated goods under their own name. Buckwheat honey is not sold as white clover, nor dog-fennel as linden. Mr. Muth has so educated his producers that they keep each kind separate and intact, and that enables him to call each by its Christian name. Where to-day are the dealers who, a few years ago, flooded the West with beautiful glass packages of pure glucose, adulterated with a piece of comb honey swimming in it, and labeled White Clover in gold letters? Are they to be seen adorning the shelves of grocerymen, with their gold-embossed labels? Bee-keepers do not need a monkey and hand-organ to attract attention, but their name stamped upon the white wood of the package of comb honey, or upon the keg, can, or barrel of extracted.

Honey that is shipped to cities is produced almost entirely in one and two pound packages, and shipped in crates with glazed sides. We lately saw one of these pretty crates in a grocer's window, and thought "beauty unadorned is adorned the most." Would it cater to the wants of the consumer if the white wood of these packages was covered with gayly tinted paper? Does he want to pay for it? Some one must, for it will come out of some person's pocket-book. These crates should be graded, and the same in the middle as shown next to the glass, and have the producer's name stamped on each one. A producer who has a reputation to maintain, will not be likely to put in the center of a crate stamped packages that are black in the center from being used as cradles for a generation of bees, and then filled in the fall with the juice from apple and sorghum mills, and honey from frosted buckwheat fields.

White clover honey has no superior, and should be graded as such, but linden, goldenrod, buckwheat, etc., are produced and relished by many, and should be graded and sold under their own name. A home market is necessary, in order to keep bees for profit, and if the producer has none, he should make one. Milk routes have a money value, and are sold according to their merits, and honey routes will have a pecuniary value when they are better understood.

We have noticed that when a family eats honey at all, considerable is consumed; while another family cannot be persuaded to buy a pound. Some bee-keepers canvass their own neighborhood, and leave a small package at each house, and build up a trade in this way. All undesirable lots can be worked off at home and better prices

obtained for it, than by shipping to distant cities.

Bee-keepers, as a class, have a mania for shipping to large centers, and the business has been injured in that way, as honey is sold there for less than in small towns. We have known of grocers in adjoining towns ordering honey from here, when we knew of producers near them that should have supplied them, and saved transportation.

Peoria, Ills.

What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

Feeding Bees in Winter, etc.

1. What is the best way to feed our bees in winter, when we have them in a cellar, and know they have not enough to keep them through until spring? Many that were late swarms in this section, will be short of stores where they have not been replenished from stronger colonies; and, unless fed some during the winter, many colonies will starve. There was only enough fall honey to keep up a good brood.

2. Will the division-board feeder, as described in Prof. Cook's work, do for a winter feeder, or would it be best to feed from cups covered with cloth, bottom upwards, and placed over the frames? Please state the best and safest way, and oblige many, who from necessity or neglect, have deferred this great necessity until now.

J. W. SANDERS.

Le Grand, Iowa, Nov. 16, 1883.

ANSWERS.—1. I have never yet been able to feed bees in winter, or at any time, when they could not fly for a considerable length of time, to my satisfaction.

2. I have never tried Prof. Cook's feeder above referred to, but from my experience with those working upon the same principle, I should not dare to depend upon it nor the cups covered with cloth. A good feeder should combine the following qualities: It should not leak a drop, whether the bees desert it or not. It should not daub the bees. It should not waste heat, nor excite robbing. The great trouble with all feeders, with cloth attached, is that they do not hold the feed, when from cold or any other reason the bees abandon it for a time, then daubing and robbing follow. It is best to do all feeding necessary before the bees cease flying, but in your case I should use one of the three feeders I have devised, called a "Winter feeder." It differs from the other two I use, inasmuch as

the opening is very large, and the feeder very shallow. If the feed consists of pure cane sugar syrup, the bees will take it down to the combs in winter, if in the cellar and the feeder covered warm.

Moving Bees, etc.

Please answer the following questions through the BEE JOURNAL:

1. Can I, without loss, put my bees in a new yard (adjoining the old one) in the spring, when I take them out of the cellar, and what precautions will have to be taken.

2. Can extracted honey be shipped in barrels without waxing the same, and if they are waxed, how much wax will be required? M. E. DARBY.

Dexter, Iowa, Nov. 10, 1883.

ANSWERS.—1. Certainly you can, and that, too, without any precaution, nine times out of ten, though it will be well to remove all land-marks from the old apiary that you can conveniently, and place a board partially in front of the hives, but so as not to shade the entrances when you put them out for their first flight.

2. My experience in waxing barrels is that the wax costs as much or more than the barrel, and is not needed at all. A good wooden-hooped pork barrel, made tight by a good workman, will hold honey nicely. Mrs. Spades, the ex-lady honey dealer of Chicago and New York, told me that she was convinced that wooden-hooped barrels would hold honey better than those iron-bound. I, at once, changed to the cheaper barrel, and found her opinion correct in my case. Before filling a barrel, I always see that the hoops are driven tightly, and the outside ones nailed; the "outside" in each group. Pour in a gallon of hot water, and shake until it saturates each part. Pour out, then weigh the tare, and fill with honey, and weigh and mark all on the head of the barrel, and you are ready for an unexpected order.

A meeting of the bee-keepers of Des Moines Co., Iowa, will be held on the second Tuesday in January, at 10 a. m., for the purpose of organizing a county bee-keepers' association, at Middleton, Iowa, in R. C. Crawford's Hall. JOHN NAU, FRANK MELCHER, A. M. BALDWIN, W. R. GLANDON, Committee.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey, instructions on the exhibition of bees and honey at Fairs, etc. This is a new 10 cent pamphlet, of 32 pages.

SELECTIONS FROM OUR LETTER BOX

Seed of an Aster.

I enclose a package of seed that I obtained from a plant that is making its appearance here. It grows from one to three feet high, and blooms from the middle of August until frost kills it. The flowers are small; the outside being white and the centre yellow. The flowers look very much like the flowers of the May weed. The plant is very hardy, increases rapidly, and stands drouth better than other honey plants, and appears to stand next to sweet clover for secreting nectar. Sow the seed almost any place in the spring, and the plant will be apt to take care of itself; it is very hardy and will not winter-kill.

M. MILLER.

Scott Co., Iowa, Nov. 12, 1883.

[The plant is evidently an aster, but from the seed alone, nothing very certain can be said of it. Seed will be sown and report made, if favorable, next year.—T. J. BURRILL.]

No Fall Honey.

We had an exceptionally bad season in our immediate neighborhood. April opened, promising fine weather, but soon the cold set in, and in connection with raw winds, increased my winter losses to about 80 per cent. We had a very fine stand of white clover, but the bees did not gather any surplus until the latter part of July, and then it lasted but a few weeks. There was no fall honey. I received about 70 pounds of mostly extracted honey, per colony, spring count; but they are pretty well supplied with stores of white clover and Alsike honey. G. E. T. KYBER.

Green Bay, Wis., Nov. 19, 1883.

No Surplus Honey.

The season of 1883, for bees in this section, has been a peculiar one. The spring opened very favorably, but May was so very wet and cold that the bees could not gather enough for brood-rearing. June was somewhat more favorable, then swarming commenced, and, by the time that was over, the drouth was here with cold nights; during August, on account of the cold nights and dry weather, no buckwheat honey of any account was stored, and the early frost in September cut all prospect for surplus out of the question. I do not think there was one pound of surplus, when last season there were ten pounds. Bees are now in winter quarters with honey enough, but weak in bees, and we are having a perfect blizzard here; it is already 18° above zero, and the wind blowing a perfect hurricane. Bees unprotected will suffer from this cold snap. I got but little surplus on account of selling nuclei, and using my bees for queen-rearing. H. H. BROWN.

Light Street, Pa., Nov. 15, 1883.

Early Frost Cut off the Fall Bloom.

I commenced the season with 42 colonies; 5 were rather weak, and owing to the cold wet spring, they were all rather weak, when the white clover came. I extracted 4,000 pounds of extra fine honey; and increased to 80. The frost came early and cut off the fall honey. I sold one, and have the rest in the cellar (all Italians).

JOHN DEWAR.

Tiverton, Ont., Nov. 17, 1883.

Cellar Wintering of Bees.

In the fall of 1882, my 23 colonies were stored for winter, viz.: Seven were packed in chaff on the summer stands, and 16 were put in the cellar. They wintered well, and had plenty of honey left. I kept the cellar at a temperature of 35° to 45°. In one instance the thermometer fell to 32°, on which occasion the bees became very restless. Thinking the weather would continue cold for some time, I began to warm the cellar, by putting a bucket full of live coals on the cellar floor, several times a day. I noticed a great deal of dampness, and after using the coals, this dampness was removed, and the bees became quiet again. Before this was done, the moment the bees heard a noise, when we entered the cellar, they began to fly out and stir up things lively. In regulating the cellar, as above stated, I think bees will winter every time. I have 60 colonies packed into the cellar this winter. I began the spring of 1883 with 23 colonies; increased to 70; obtained 1,055 pounds of extracted, and 1,075 pounds of comb honey; in all 2,130 pounds; and average of 93 pounds per colony, spring count. My best colony, Cyprian, yielded 212 pounds of extracted honey. The fall season was rather poor; the bees did not do much after July 15, on account of dry weather. JOHN NEBEL.

High Hill, Mo., Nov. 19, 1883.

Foul Brood.

Several packages of discolored bee-comb have been received in response to request. All except one are found to contain the same micro-organism. The exceptional one I do not know who sent; but it came in a piece of pine, and with a bored inch hole, and outside made octagonal. A few cells of the comb were wrapped in a strip of muslin, and put into the place provided in the piece of pine wood. In this specimen nothing of a living character has been found. Another specimen, sent in a stout paste-board box about 2½ by 3 inches, and labeled "Cobalt" was accompanied by a letter which I am sorry to say has been misplaced without reply. The indications are that in this latter there is genuine foul brood. Should be pleased to know again the correspondent sending the specimen. So far there is nothing to indicate a difference between so-called malignant and mild types of the disease. Private replies have been sent to most of the receipts, but I here return many thanks for the specimens sent.

T. J. BURRILL.

Champaign, Ill., Nov. 17, 1883.

Bee-Keepers Produce the Beeswax.

They are now the greatest consumers of this one of their own production. In getting their wax to the foundation mills and back home, does it pay them to have the grocer, peddler, commission merchant and general dealer in wax, etc., each take a margin out of them? Just think the matter over, and form correct conclusions.

JAMES HEDDON.

Dowagiac, Mich., Nov. 17, 1883.

Poor Season for Bees.

This has been a poor season for bees here. We have had only a quarter of a crop of honey, and very little increase. It was so very dry that bees could get no nectar. Enclosed I send a plant on which bees work every morning. What is it? G. HILLJIE.

Sohnlenburg, Tex., Nov. 17, 1883.

[It is figwort, or the Simpson honey plant.—Ed.]

Strange Bees.

A negro man lately came to me and asked me to buy a bee tree he had found, near my house. I bought the tree for 50 cents, and went to cut it. As bees had done so poorly, and had so little honey, I thought the combs would not break down, but every comb broke down, being so full of honey, and, to my astonishment, I noticed they were a strange kind of bees, being larger than the common bee, and having one and two yellow bands around their bodies, and had between 30 or 40 lbs. of honey; nearly twice as much as my home colonies have. I put them in a clean hive, and I am feeding the honey back to them for winter. They must be splendid honey-gatherers to get so much in such a year as this. They were no nearer the swamp than my bees. I know that bees have gathered all their honey from the swamp, this year.

W. S. DOUGLASS.

Lexington, Tex., Nov. 10, 1883.

Explanation, and Report for 1883.

On page 548, of the present volume, you will see that I obtained 75,000 pounds of honey from 60 colonies of bees, spring count. That is a mistake, omit one cipher and you will have the correct amount. That Dr. J. C. Thom, of Streetsville, Ont., on page 563 of the present volume, did not understand how that was done, is no wonder. I can only say it was done, by adding a cipher. I will give my brief report for the season, just passed. After coming through the spring, by loss and selling, I found myself the possessor of 60 colonies of bees, most of which were in good condition. By the last of May, some of the hives were filled with bees to overflowing, and ready to swarm. Not being in favor of swarms on fruit blossoms, I commenced to equalize them by taking from the strong and giving to the weak; in this way I kept back swarming until June 15, when out came four swarms, followed by from one to five swarms a day, until June 28, when I made what swarms I thought best by dividing. July 4

found me with 100 colonies, 90 of which were given sections, and 10 prepared for extracted honey (4 new and 6 old). The bees worked hard on clover, but the nectar was very thin) and they did not gain very fast. On July 20, basswood blossomed, and then the bees worked early and late, rain or shine, for 24 days, when all was over; after which they hardly got as much as they consumed. Sept. 1, honey all taken. I find that I have 2,500 two-pound solid sections of white honey, and 2,500 pounds of extracted, making a total of 7,500 pounds of honey from 60 colonies in the spring. This fall, I made by doubling my nuclei, 6 more. So that now, in all, I have 106 colonies in good condition, packed in chaff for winter.

J. H. KENNEDY.

Little York, N. Y., Nov. 19, 1883.

My Report for 1883.

As I did not make a spring report, perhaps it would not be out of place now. The first of June found me with 30 fair colonies, out of the 45 put in the cellar on Nov. 20, 1882. The second day of March was the only day between Nov. 20 and April 5 that the bees could fly. At that time every colony I had was suffering badly from dysentery, and a number of them were dead. As the day was warm and pleasant, I set them all out, and such a mess! In a few minutes the snow was completely discolored, and you could smell it 10 or 15 rods from the yard. After an hour's flight, I began feeding them sugar-syrup, which I prepared and warmed by tipping up the front of the hive and pouring it in at the entrance, giving each colony 5 lbs. of syrup, which was all taken up before I set them in, in the evening. I saw no more of the disease during the rest of the winter. I set them out on April 5. Now for the results of my season's work: I took 2,000 lbs. of comb honey, in two-pound sections, and 1,250 lbs. extracted; all from the Alsike clover and basswood. I increased to 56. The honey is mostly sold in my home market, at 15 and 20 cents per pound. My queens are all bred from Mr. Doolittle's best strain.

WM. BERRYMAN.

Geneva, N. Y., Nov. 18, 1883.

My Surplus Arrangement.

I have been a reader of the BEE JOURNAL for one year, and think every one that keeps bees should have it, for it will more than pay. I see that most of the bee men use a case to hold sections. Some say I have the case, and no doubt of it; others seem to doubt it considerably. I do not use a case at all, nor separators either, and I have not had enough crooked or bulged sections for table use, this season. I do not say that I have the best surplus arrangement in existence, but one that is cheap, and any one can test it for themselves. I use a slot honey-board, Langstroth hive, and one-pound sections. The honey-board prevents the bees from gluing the outside of the section, except at the entrances. I place seven sections in a row. I have glass cut

the size I use, $4\frac{1}{4} \times 4\frac{1}{4}$; I place one at each end of the row; then take a common rubber band or cord and stretch it around a row of sections and glass, and you have the arrangement complete. I use four rows or 28 sections for one tier, and I tier them up 2, 3, and 4 high, using 112 sections on a hive at once, if needed. Bee men from several counties have visited my apiary this season, and all like the arrangement first rate, and went home and tried it. One said, "It is the nicest thing I have ever tried." Another said, "I will never use another case, as long as I keep bees."

FRANK E. THOMPSON.

Tiskilwa, Ill., Nov. 16, 1883.

From 8 to 20, and 500 lbs. Comb Honey.

I commenced the season with 8 colonies of black bees; increased to 20, and got 500 lbs. of comb honey in two-pound sections; for which I found ready sale at from 15 to 18 cents per pound, near home, and could have disposed of much more at the same price, if I had it to sell. I procured a tested Italian queen from Henry Alley; introduced her early in July, and Italianized one-half my colonies later in the season.

J. A. BLACK.

Pleasant Mound, Ill., Nov. 19, 1883.

A Question for Mr. Stewart.

On page 576 of the BEE JOURNAL, is a very interesting article by Mr. W. H. Stewart, entitled, "Shall we Clip our Queens' Wings?" at the close of which he says: "If I were offering queens for sale as superior stock, I would compel the brood mothers to fly often, even if I had to toss them up to give them a start." I wish to ask him a question to illustrate the matter in a different light. Suppose that he had a brood mare from which he wished to rear colts noted for speed, would he consider it necessary or advisable, during foal, that she be driven at a high rate of speed, with a view of transmitting that quality to the offspring? W. N. HOWARD.

Derby, Vt., Nov. 19, 1883.

The Michigan Convention.

DEAR MR. EDITOR:—May I ask you to call special attention to our next annual meeting to be held in Flint, Dec. 5 and 6, of the Michigan Bee-Keepers' Association. We expect to have by far the best meeting ever held in the State. It is expected that the Rev. L. L. Langstroth will be present. To see and hear him will pay any one for the trouble and expense incident to the journey. We also expect D. A. Jones, A. I. Root, C. F. Muth, and hope to have C. C. Miller and T. G. Newman. From what I hear, Michigan bee-keepers are to be out in force. Hotel rates are to be \$1.00 a day. Further particulars as to programme, will be given soon. We expect to get reduced rates on the railroads. To aid in this, and that I may know how many certificates on railroads to ask for, will every one in this or other States who expect to come, drop me a card at once to that effect?

A. J. COOK, President.

[Sorry we cannot attend.—Ed.]

Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

How to Create a Market for Honey.

We have now published another edition of the pamphlet on "Honey as Food and Medicine," with more new Recipes for Honey Medicines, all kinds of cooking in which honey is used, and healthful and pleasant beverages.

We have put the price *still lower*, to encourage bee-keepers to scatter them far and wide. Single copy 5 cents, postpaid; per dozen, 40 cents; per hundred, \$2.50. 500 will be sent postpaid for \$10.00; or 1000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit. Try it, and you will be surprised.

Subscription Credits.—We do not acknowledge receipt of each subscription by letter. The label on your paper, or on the wrapper, shows the date to which your subscription is paid. When you send us money, if the proper credit is not given you, within two weeks thereafter, on your label, notify us by postal card. Do not wait for months or years, and then claim a mistake. The subscription is paid to the end of the month indicated on the wrapper-label. This gives a statement of account every week.

Our New List of Premiums.

Getting up Clubs for 1884.

To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

While no subscription to the BEE JOURNAL will be taken for less than the regular advertised prices (viz.: Weekly, \$2.00; Monthly, \$1.00),—any one getting up a club of two copies, or more, may select from "OUR BOOK LIST" anything therein named, to the amount of 15 cents for every dollar *they send direct to this office*, to pay them for the trouble of getting up the club; and these books will be sent, postpaid, to any address desired.

For a club of 3 Weekly or 6 Monthly and \$6.00, we will make an *additional* present of a Pocket Dictionary, bound in cloth, containing 320 pages.

For a club of 5 Weekly or 10 Monthly, (or a mixed club of both,) with \$10, we will, in addition to the 15 per cent, present a copy of the AMERICAN "POPULAR" DICTIONARY, comprising every word in the English language that enters into speech or writing; it contains 32,000 words and phrases, 670 illustrations and 512 pages; it is nicely bound in cloth, and will be sent by mail, postpaid, to any address desired.

For a club of \$20, for 10 Weeklies, or an equivalent in Monthlies, we will present, besides the 15 per cent. in books, a tested Italian queen, by mail, postpaid.

Announcements for larger clubs will be made hereafter.

Subscriptions for two or more years for one person, will count the same as each year for a different person.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Bee Pasturage a Necessity.—We have issued a new pamphlet giving our views on this important subject, with suggestions what to plant, and when and how. It is illustrated with 26 engravings, and will be sent postpaid to any address for ten cents.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

A Chance for Fun.—The "latest thing out" in the way of something to afford home amusement for winter evenings, or a side show for church fairs, consists of a sort of Magic Lantern that does not require pictures on glass. The Polyopticon, as it is called, because it will show up so many different things, makes use of ordinary newspaper pictures, family photographs, chromo cards, home-made sketches, etc., and thus affords a new use for the collections of pretty cards, which so many have been industriously making. Though patented, it can be made and sold at one-fourth the price of a good Magic Lantern.

Descriptive circulars can be obtained of the Murray Hill Publishing Co., 129 East 28th St., New York City.

It would be a great convenience to us, if those sending us Postal Notes or Money Orders, would get the issuing Post-master to make them payable at the "Madison Street Station, Chicago, Ill.," instead of simply "Chicago." If they are drawn on Chicago, they go to the general office, and we have to make a trip of six miles to get them cashed; but if they are drawn on the Station as above, it is only a few steps from our office. When sending us money, if you will please remember this, you will much oblige the publisher.

Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

We need the numbers of the BEE JOURNAL for August, 1866, and April, 1876. Any one having them to spare, are requested to send us a Postal Card. We will give 25 cents for each. Do not send them without writing, for we want only one of each; and, if we are not already supplied, we will take them.

Speak a word for the BEE JOURNAL to neighbors who keep bees, and send on *at least one new* subscription with your own? Our premium, "Bees and Honey," in cloth, for one new subscriber to the Weekly, or two for the Monthly, besides your own subscription to either edition, will pay you for your trouble, besides having the satisfaction of knowing that you have aided the BEE JOURNAL to a new subscriber, and progressive apiculture to another devotee.

It must be understood that, should an advertiser desire to cancel an unexpired contract, he can do so only by paying regular rates for the number of insertions his advertisement has had.

SPECIAL PREMIUM!



Five Octaves, four sets of Reeds of two and one-half octaves each, eight hand and two knee stops, as follows:

DIAPASON.
CELESTE.
TREBLE FORT.

MELODIA.
ECHO HORN.
BASS FORTE.

VIOLA.
DULCET.
KNEE SWELL.
GRAND ORGAN.

Height, 5 feet 11 inches; width, 4 feet 2 inches; depth, 2 feet; weight, boxed, 350 lbs. This Organ is unexcelled for purity of tone, durability and beauty, and is fully warranted for five years.

This Organ will be shipped to the order of any person sending us a Club of **One Hundred Subscribers** to the **Weekly BEE JOURNAL**, accompanied by **\$200.00 Cash**, or its equivalent of Monthly and Weekly Subscriptions combined.

This liberal offer will remain open until June 1, 1884, and presents a fine opportunity to energetic persons to secure a handsome Organ without cost.

Subscriptions and remittances may be sent in at any time, and will be credited to this Premium, when so stated.

FOR SALE.

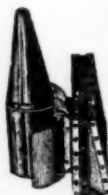
Barnes' Combined Foot-Power Saw,

Gig Saw, 2 Mandrels, 2 Emery Wheels, 3 Cutter Heads. Total cost, \$52.00. I will sell at 40 per cent. discount. Also one Mandrel, for power, \$5.

V. W. KEENEY,
48A2t SHIRLAND, ILL.

Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.
32A1t **J. VANDERVORT,** Lacyville, Pa.



BINGHAM SMOKERS.

I can sell the above Smokers at **MANUFACTURERS' PRICES**, by mail or express, at wholesale or retail. All the latest improvements, including **THE CONQUEROR**, and **THE DOCTOR**.

Send for my 32-page Illustrated Catalogue of Bee-Keepers' Supplies of every description.

ALFRED H. NEWMAN,
923 W. Madison, CHICAGO, ILL.

SAMPLE SECTION RACKS.—In answer to many inquiries, I will furnish samples of the section rack I use for 75c. **T. E. TURNER,** Sussex, Wis.

A NEW HIVE.

Arranged for continuous combs and continuous passage-ways. Will be found a pleasure to work with, and can be easily and rapidly managed. For comb honey it is without a rival, and as an invention, is second only to that of movable brood frames.

Guaranteed to Give Satisfaction.

SEND FOR PRICE LIST AND CIRCULAR.

Address, **DR. G. L. TINKER,**
44Atf NEW PHILADELPHIA, O.

DR. FOOTE'S HAND BOOK OF HEALTH,

HINTS AND READY RECIPES.

Is the title of a very valuable book that gives a great amount of information of the Utmost Importance to Everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping, Bathing, Working, etc.

It Costs only TWENTY-FIVE CENTS, and contains **28** pages, and is sent by mail, **post-paid, on receipt of price.** This is just the Book that every family should have.

IT TELLS ABOUT

What to Eat, How to Eat it, Things to Do, Things to Avoid, Perils of Summer, How to Breathe, Overheating Houses, Ventilation, Influence of Plants, Occupation for Invalids, Superfluous Hair, Restoring the Drowned, Preventing Near-Sightedness,	Parasites of the Skin, Bathing—Best way, Lungs & Lung Diseases, How to Avoid them, Clothing—what to Wear, How much to Wear, Contagious Diseases, How to Avoid them, Exercise, Care of Teeth, After-Dinner Naps, Headache, cause & cure, Malaria: Affections, Croup—to Prevent.
---	---

IT TELLS HOW TO CURE

Black Eyes, Bolls, Burns, Chills, Cold Feet, Corns, Coughs, Cholera, Diarrhoea, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sunstroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts, Whooping Cough, Worms in Children.

It will Save Doctor Bills!

Price only **25 Cents.** Sent by Mail, post-paid, by

THOMAS G. NEWMAN,
925 West Madison Street, CHICAGO, ILL.

THE YOUNG SCIENTIST.

A Practical Journal for Amateurs.

Tells about work of all kinds for Boys and Girls—Lathes, Scroll Saws, Microscopes, Telescopes, Boats, Athletic Sports, Experiments, Pets, Bees, Poultry, etc., etc. Finely Illustrated.

\$1.00 per year. Specimens Free.

The following Books are **New, Thorough, Reliable and Cheap.** They contain as much matter as most of the books which sell at \$2.50 and \$5.00.

Practical Carpentry. By F. T. Hodgson. Over 300 Illustrations. The best book on the subject ever issued. \$1.00

The Steel Square and its Uses. By F. T. Hodgson. Over 75 Engravings. Shows how the Square may be used for Solving almost every Problem in Carpentry. 1.00

Hand Saws; Their Use, Care, and Abuse. How to Select and How to File Them for all kinds of Work. By F. T. Hodgson. Over 75 Engravings. 1.00

Plaster and Plastering; Mortars and Cements. How to Make and How to Use Them. With a Glossary of Terms. Numerous Engravings and 3 Fine Plates. By F. T. Hodgson. 1.00

The Builder's Guide and Estimator's Price Book. By F. T. Hodgson. The most Complete Work of the Kind Published. 2.00

Any of the above Mailed Free on Receipt of Price. Send for Large Descriptive Catalogue.

INDUSTRIAL PUBLICATION CO.,

48A6t 294 Broadway, New York.

Muth's Honey Extractor,

Square Glass Honey Jars, Tin Buckets,
Langstroth Bee Hives, Honey Sections, etc.
Apply to
C. F. MUTH,

976 and 978 Central Ave., CINCINNATI, O.
Send 10c. for Practical Hints to Bee-Keepers.

WISE

people are always on the look-out for chances to increase their earnings, and in time become wealthy; those who do improve their opportunities remain in poverty. We offer a great chance to make money. We want many men, women, boys and girls to work for us right in their own localities. Any one can do the work properly from the first start. The business will pay more than ten times ordinary wages. Expensive outfit furnished free. No one who engages fails to make money rapidly. You can devote your whole time to the work, or only your spare moments. Full information and all that is needed, sent free. Address **STINSON & CO.,** Portland, Maine.

**PRIZE QUEENS.**

Tested Prize Queen, in a 2-frame nucleus, 8x17, each, \$4 00
Same in nucleus, 4 fra., 8x8, 4 00
Tested Prize Queen, by mail, 3 00
Prize Queen, warranted purely fertilized, 2 00
Queen, not standard size, 1 00
Full Colony, 8 frames, Prize Queen, 8 00
Before June 25, add \$1 each.
Cash Orders filled in rotation.
Address **E. L. BRIGGS,**
1A1y Wilton Junction, Iowa.

65 ENGRAVINGS.

THE HORSE,

BY B. J. KENDALL, M. D.

A TREATISE giving an index of diseases, and the symptoms; a table of each, a table giving all the principal drugs used for the horse, with the ordinary dose, effects and antidote when a poison; a table with an engraving of the horse's teeth at different ages, with rules for telling the age of the horse; a valuable collection of recipes, and much valuable information.

Price 25 cents.—Sent on receipt of price, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

CHRONIC DISEASES CURED.

New paths marked out by that most popular book on MEDICAL, SOCIAL and SEXUAL SCIENCE, PLAIN HOME TALK and MEDICAL COMMON SENSE. Nearly 1000 pages and 200 illustrations, treating of the human body in health and disease, by **DR. E. B. FOOTE, of New York City;** Price, \$1.50. Over 500,000 of his books have been sold in the United States, England, Germany and Australia. An Edinburgh physician, retired after fifty years practice, writes: "Your work is priceless in value, and calculated to regenerate society." A 16-page contents table of Plain Home Talk, a copy of Dr. Foote's Health Monthly, and a 100-page pamphlet of "Evidences" of the curability of all Chronic Diseases of whatever part, sent for 3 cents.

DR. FOOTE'S Hand-Book of Health Hints and Ready Receipts gives 128 pages of advice about daily habits in all seasons, and recipes for cure of common ailments—a valuable reference book for every family. By mail, 25 cents. LIBERAL DISCOUNT TO AGENTS.



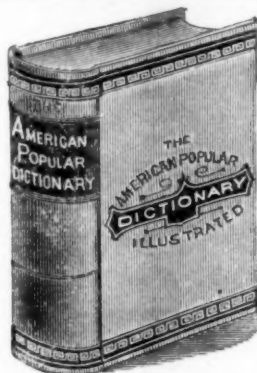
Murray Hill Publishing Co.,
129 East 28th Street, New York City.

THE AMERICAN POPULAR DICTIONARY.

CONTAINING

EVERY USEFUL WORD IN THE ENGLISH LANGUAGE.

With its Correct Spelling, Proper Pronunciation, and True Meaning.



ALSO, A VAST AMOUNT OF
ABSOLUTELY NECESSARY INFORMATION
UPON

Science, Mythology, Biography, American History, Constitutions, Laws, Growth of Cities, Colleges, Army and Navy, Rate of Mortality, Land Titles, Insolvent and Assignment Laws, Debts, Rates of Interest, and other Useful Knowledge.

BEING A PERFECT LIBRARY OF REFERENCE IN ONE HANDY VOLUME.

512 pages; Cloth; Gilt; Illustrated.

This Dictionary is our Premium for a Club of 5 subscribers to the Weekly (or its equivalent to the Monthly), in addition to other Books selected from our Catalogue to the amount of \$1.50; all by mail, postpaid.

A POCKET DICTIONARY

Containing 320 pages, and over
25,000 Words, Rightly and Plainly Defined

To make the pronunciation easily understood every word is phonetically re-spelled, and the syllables and accents made perfectly plain, so that no one who consults this book can miss the proper word to use, and giving it proper pronunciation.

This Dictionary is our Premium for a Club of 3 subscribers to the Weekly (or its equivalent to the Monthly), in addition to other Books selected from our Catalogue to the amount of \$1.00; all by mail, postpaid.

Sweet Clover

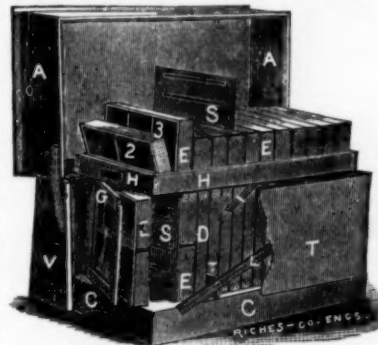
AND OTHER SEEDS.

Having a LARGE stock of SWEET CLOVER SEED. I can fill orders at 25c. per pound \$3.25 per peck, or \$12 per bushel.

Also, all other SEEDS for HONEY PLANTS.

ALFRED H. NEWMAN,
923 West Madison Street, Chicago, Ill.

FOR SALE.—200 colonies of BEES in one and two-story 20-frame Langstroth hives.
O. M. BLANTON and G. C. VAUGHT,
46A3t GREENVILLE, MISS.

1876. CROWN 1882.

The best arranged HIVE for all purposes in existence. Took first premium at St. Louis Fair in 1882 and 1883 over all competitors. Descriptive Circular sent free to all on application.

Address, **ELVIN ARMSTRONG,**
Prop'r. of the Crown Bee Hive Factory and Apiary,
JERSEYVILLE, ILL.

APIARY FOR SALE.

Everything complete; 55 Colonies in Langstroth hives, well stored with honey, also new hives, sections, frames, foundation, extractor, smoker, etc. Good location; abundant home market for honey from 5-6 colonies. *Siatica* compels me to sell.

Address, **A. H. HOLCOMB,**
46A4t Bit WINNEBAGO, ILL.

FOR

BEES, QUEENS

AND ALL

APIARIAN IMPLEMENTS,

SEND FOR CIRCULAR TO

FLANAGAN & ILLINSKI,

Lock Box 905, BELLEVILLE, St. Clair Co. ILL.
1A1y

BEE SWAX WANTED!

HIGHEST Market Price Paid.

Please state Quality and Quantity.

JAMES HEDDON,

DOWAGIAC, MICH.

PATENTS

MUNN & CO., of the SCIENTIFIC AMERICAN, continue to act as Solicitors for Patents, Caveats, Trade Marks, Copyrights, for the United States, Canada, England, France, Germany, etc. Hand Book about Patents sent free. Thirty-seven years' experience. Patents obtained through MUNN & CO. are noticed in the SCIENTIFIC AMERICAN, the largest, best, and most widely circulated scientific paper. \$3.20 a year. Weekly. Splendid engravings and interesting information. Specimen copy of the SCIENTIFIC AMERICAN sent free. Address **MUNN & CO., SCIENTIFIC AMERICAN Office, 261 Broadway, New York.**

The Bee Keepers' Handy Book

216 pages, bound in cloth, by mail, post-paid, for \$1.00 per copy. Send for prospectus and our special Circulars describing three new and useful articles for the apiary.

47A4t **HENRY ALLEY, WENHAM, MASS.**

Given's Foundation Press.

PUBLIC SENTIMENT affirms that the PRESS is SUPERIOR for making Comb Foundation either in Wired Frames or for SECTIONS, and insures straight and perfect combs, when drawn out by the bees. Send for Circular and samples.

D. S. GIVEN & CO.,
1 ABTf HOOPESTON, ILL.

REST

not, life is sweeping by, go and dare before you die, something mighty and sublime, leave behind to conquer time." \$66 a week in your own town. \$5 out-fit free. No risk. Everything new. Capital not required. We will furnish you everything. Many are making fortunes. Ladies make as much as men, and boys and girls make great pay. Reader, if you want business at which you can make great pay all the time, write for particulars to H. HALLETT & CO Portland, Maine. 8Aly

FLAT-BOTTOM COMB FOUNDATION.



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook, Mont. Co., N. Y.

BIND YOUR JOURNALS

AND KEEP THEM
NEAT AND CLEAN.



The Emerson Binder

IS THE NEATEST AND CHEAPEST.

Any one can use them. Directions in each Binder
For Monthly Bee Journal.....50c.
For Weekly Bee Journal.....75c.

Address, **THOMAS G. NEWMAN,**
925 West Madison Street, Chicago, Ill.



COMB HONEY WANTED.

We are prepared to purchase large lots of Fancy COMB HONEY in 1 and 2 lb. sections, or Harbison frames, for which we will pay an advance of 5 cts. per pound over New York prices. CASH ON DELIVERY in sound condition in London: the price of extracted honey will be paid for all broken combs. This is an excellent opportunity for bee-keepers wishing to visit Europe. Correspondence solicited. **W. M. HOGG & CO.,**
The Apiary, Leconfield, Rd. N.

33A1f LONDON, ENGLAND.



Bingham Smoker.

Please bear in mind that our patents cover all the bellows bee smokers that will burn sound wood.

Bingham & Hetherington,
ABRONIA, MICH.

\$72

A week made at home by the industrious. Best business now before the public. Capital not needed. We will start you. Men, women, boys and girls wanted everywhere to work for us. Now is the time. You can work in spare time, or give your whole time to the business. No other business will pay you nearly as well. No one can fail to make enormous pay, by engaging at once. Costly outfit and terms free. Money made fast, easily and honorably. Address **TRUE & CO.,** Augusta, Maine. 8Aly

HONEY

I buy and sell Honey for Cash only. As I do no Commission business, I will not accept shipments without previous correspondence.

BEE-KEEPERS' SUPPLIES,

ALFRED H. NEWMAN,

WHOLESALE AND RETAIL DEALER IN

INCLUDING SECTIONS FOR COMB HONEY, SMOKERS, VEILS, GLOVES,

Honey and Wax Extractors, Comb Foundation, Kegs and Pails for Honey, Seeds for Honey Plants, etc.,

923 WEST MADISON STREET,

CHICAGO, ILLINOIS.

Illustrated Catalogue sent free upon application.

BEE SWAX.

I pay 26c. per pound delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

ALFRED H. NEWMAN.

923 West Madison Street, CHICAGO, ILL.

BEES and HONEY,

OR THE

Management of an Apiary for Pleasure and Profit; by

THOMAS G. NEWMAN.

Editor of the Weekly Bee Journal.

925 West Madison Street, Chicago, Ill.

It contains 160 profusely illustrated pages, is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the Honey Bee, and at the same time produce the most honey in its best and most attractive condition.

Appreciative Notices.

A neat and abundantly illustrated hand-book of apiculture.—American Agriculturist, N. Y.

Its chapter on marketing honey is worth many times its cost.—Citizen, Pulaski, Tenn.

Contains all the information needed to make bee-culture successful.—Eagle, Union City, Ind.

Just such a work as should be in the hands of every beginner with bees.—News, Keithsburg, Ill.

Valuable for all who are interested in the care and management of bees.—Dem., Allegan, Mich.

Engravings are fine. Gotten up in the best style and is cheap at the price.—Farmer, Cleveland, O.

Carefully prepared for beginners.—Farmers' Cabinet, Amherst, N. H.

A very valuable work to those engaged in bee-raising.—News, Prairie City, Iowa.

We advise all who keep bees to send for this excellent work.—Journal, Louisiana, Mo.

Carefully prepared, and of vast importance to bee-raisers.—Indianian, Clinton, Ind.

New and valuable, and embellished with 109 beautiful engravings.—Democrat, Salem, Ind.

Much practical useful information, in a cheap form.—Daily Standard, New Bedford, Mass.

The most perfect work for the price ever yet produced on the subject of bee-culture.—Anti-Monopolist, Lebanon, Mo.

A manual, containing all the newest discoveries in the management of these little workers.—Plain Dealer, St. Lawrence, N. Y.

Full of practical instruction, that no one who contemplates keeping bees can do without.—Farmers' Journal, Louisville, Ky.

It comprises all that is necessary for successful bee-culture, save experience and good judgment.—Daily Republican, Utica, N. Y.

Gives minute details for the management and manipulations necessary to make bee-keeping a success.—Col. Valley and Farm.

Written in an interesting and attractive manner, and contains valuable information for all readers, even though they be not directly interested in the care of bees.—Sentinel, Rome, N. Y.

It embraces every subject that can interest the beginner in bee-culture. The engravings perfectly illustrate the text.—Farm and Fireside, Springfield, O.

Embraces every subject of interest in the apiary, giving very thorough details of the management and manipulations necessary to make bee-keeping a success.—Farm, Longmont, Colo.

It is a valuable and practical book, and contains a complete resume of the natural history of the little busy bee, as well as of all that one needs to know in their care and management.—Chicago Herald.

Contains a vast fund of information in regard to bee-culture. He who would keep abreast of the times must keep posted in all the improvements in his line. We advise all interested to get a copy of this book.—Daily Times, San Bernardino, Cal.

Describes all the newest discoveries in the art, by which the production of delicious and health-giving honey is obtained, as well as how to prepare it for the market in the most attractive shape.—Signal, Napoleon, O.

It embraces every subject that will interest the beginner. It describes all the newest discoveries in the art by which the production of delicious and health-giving honey is obtained, as well as how to prepare it for the market in the most attractive form. It is embellished with beautiful engravings, and is the most perfect work of the kind, for the price, that has ever come under our notice.—Farmer, Lancaster, Pa.

PRICE—Bound in cloth, 75 cents; in paper covers, 50 cents, postpaid.

THOMAS G. NEWMAN,

925 W. Madison St., Chicago, Ill.

A Liberal Discount to Dealers by the Dozen or Hundred.